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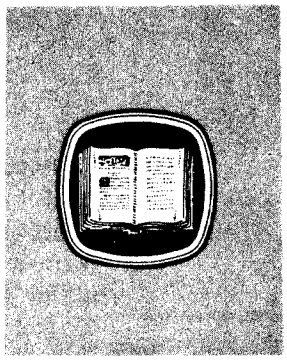

Moving a Library

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Although many libraries have been moved since the beginning of library history in the United States, and particularly in the last twenty years, it is difficult to find a statement of general principles which can be applied to the problem of moving a library. This paper, originally written for Library Schience 428 (Physical Problems of Libraries), at the University of Illinois Library School, is an analysis of the published reports of the actual moves made by 17 libraries. The moves range in date from 1921 to 1950. Of the 17 libraries, 12 were college or university libraries, 3 were public libraries, one was a state library, and one was a special library.

From a study of these 17 cases one generalization stands out pre-eminent. It is that the librarian who is planning to move must know his own situation thoroughly. This may seem to be self-evident, but the need of knowing one's own situation is so important that it can bear being repeated. Without assigning any categories of relative importance, the first thing necessary in knowing one's own situation is to determine the time for the move. The question is whether or not to make the move during the school year, if the library is a college library; and this decision must be reached through consideration of the type of manpower which will be used.

The location of the library is an important factor, too, since a library in a small, isolated city will probably find it unsuitable to hire professional movers. This is one of the things that must be considered well in advance of the actual moving. Another aspect of knowing one's own situation thoroughly is the problem of building up a spirit of interest and cooperation among the workers. Probably the majority of persons who will do the moving will have only limited acquaintance with the organization of library materials. The librarian will have to enlist the interest of the workers in doing a fast, accurate job. Perhaps the easiest way of enlisting such active cooperation is by carefully explaining the situation and by asking sincerely for advice from the movers. Persons outside the profession can oftentimes bring fresh insights to the solving of library problems.

Plan of Operations

Turning now to the more tangible aspects of moving a library, the first thing to be done is the drawing up of a plan for the move. This is based upon the general knowledge of the local situation, of course, but some general practices can be stated. Probably the simplest method that can be followed is that of drawing stack plans of both the old and the new libraries, showing the locations of the various classes of books. By drawing these plans to scale, all measuring of space can be done in advance on paper.

The problem of deciding where the various classes of books are to be located is one which must be solved by the librarian faced with moving. One way which can be followed with profit, however, is to measure the maximum height of books in each class and arrange shelf heights accordingly in the various areas. Another decision which will have to be made concerns allocation of space for expansion. One rather arbitrary method of leaving room for growth is to leave empty the top and bottom shelves of each compartment(1). When the Enoch Pratt library was moved, between 10% and 50% of each class area was left for expansion(2). This was based on anticipated growth. At the Pennsylvania State College Library one-third of each shelf was left empty to provide for expansion(3). The University of Washington Library also followed this method(4). Be sure to include in the plan all the previously separate collections which are to be integrated into the main collection. It is well, too, to mark the class areas on the plans with different colors of crayon so that the areas are easily visible. The point of all this paper work is that the whole rearrangement be worked out in advance and any corrections made before undertaking the the moving.

Another element of the plan for moving is the time table. It is difficult to state an exact time in which the job can be done. The times of moving in the cases studied varied because of the different types of materials moved and because of variations in manpower, among other things. At the California State Polytechnic College Library it required five days to move 17,000 volumes plus bulletins, circulars, and other papers(5). At the University of Washington seven men, working seven hours a day, moved 400,000 volumes in eight days(6). When the Princeton University Library was moved the work day was from 8 AM to 4.30 PM; on the first day some 21,500 volumes were transferred(7). In the first move at Columbia University, June 6-13, 1934, 102,000 books were moved. During the second move, August 18 - September 19, 1934, 572,000 books were moved to South Hall and 131,000 to Low Library and Avery Hall(8).

At the Enoch Pratt library it required six days to move the stacks, four days to move the public departments, and two days to move miscellaneous materials. The work day was from 7.30 AM to 6 PM with a half-hour for lunch. Books were shelved at the rate of one each second(9).

Professional movers moved the 40,000 books of the Social Law Library in Boston in six and one-third days of eight hours each. In a later move, janitors moved 55,000 books in 29 days of two and one-half hours each(10). The movers handled about 100 volumes per man-hour, while the janitors moved about 75 volumes per man-hour. The move at Pennsylvania State College occupied 13 1/2 days. The usual time for moving 30 feet of books and returning the boxes was twelve minutes; this works out to about 20 books a minute(11). It is difficult to figure exact times for each individual case on record and no rigid generalization can be made, but probably between 20 and 60 books can be moved a munute, if the plan is drawn carefully in advance.

The final element in the plan is the moving program itself. A good practice to follow is to have a conference of all those who are working on the move. The tentative plans can be presented and criticized. When all of the details have been settled the formal program can be drawn up. One copy of this should go to each foreman and supervisor. The program, together with a copy of all stack plans, should go to the person in charge of the unloading of the old shelves, and to the person in charge of shelving the books in the new locations. All of the librarians should know the locations of books, equipment, and furniture. All the workers should know the general picture, the hours of work, and its purposes.

As a part of the moving program one will have to decide whether or not to stop service to patrons during the move. Probably in the interest of efficiency and speed, loan desk service should be abolished during the move but neither the University of Washington Library nor the Toledo Public Library interrupted service to the public. It would be helpful, too, if all books were returned before the move, but if this is not required then adequate space must be left on the shelves for the books which are out in circulation. Some other considerations should be mentioned. Telephone communication between the two locations is essential in order that the work may go along smoothly. Be sure to dust all the shelves in the new building, since dust will accumulate during construction. At the same time one book end should be placed on each shelf in preparation for planing the books. The last day before the move is a good time to do these two things. One last consideration will be appreciated by the workers. Lunch should be provided for the workers (as was done at the Pennsylvania State College). The lunch period is a good time for talking over the move and problems that have arisen(12).

Manpower and Methods of Moving

A further matter of importance in arranging for the moving of a library is a decision as to the kind and number of persons who will be required for the job. The size of the library, the time of the move, and the location of the library, are all factors which will influence choice. One type of labor which has been used in a number of cases is men students. At St. Bonaventure College the whole move was done by students, while at other places there was a combination of students and buildings and grounds personnel, or there were professional movers. If the move of the library is to be undertaken by students it will be necessary to schedule the move during term time. This would probably require that the library cease operation for the period of the move, and the students would have to be excused from classes. This was done at St. Bonaventure by giving an all-school holiday for the one day of the move. If the moving were prolonged, however, it would require more days than the college administration possibly would care to allow. If the library is relatively small and time is not a major factor, the move could be done by students hired for the purpose. Usually there are some students available between semesters and during other vacation periods.

If use of student help is impracticable, buildings and grounds personnel can be used for the moving job. They will require as much preparation and instruction as students since they are not usually familiar with the special problems of libraries. Usually, too, the working hours of these men will be fixed by existing arrangements, and it will be necessary to fit the moving program into the hours which buildings and grounds personnel are permitted to work. This would not necessarily be the case if students were used for the job. One further kind of manpower which may be used is professional movers. The Toledo Public Library was moved by such movers(13), as was the Cambridge University Library(14). But it will be necessary that the movers be easily obtainable, and a library in a rural area would probably not find it desirable to employ a professional moving company.

Whatever type of manpower is used for the moving, certain necessary assignments should be made. Certain persons at the old library should be assigned to remove books from the shelves, pack them, and oversee the start of transporting them to the new library. Other persons will be needed at the new library to unpack the books when they arrive and to shelve them. Then, depending upon the method of moving, there must be persons to pack, load, and transport the books. The number of persons required will depend upon the physical layout of the libraries, the distances involved, and the availability of elevators, ramps, slides, and boxes, if these are required. There should be a supervisor at each end of the moving. This should be a

professional librarian who knows the overall situation, but there is no reason why an experienced and capable library assistant cannot be used as a supervisor. It is wise to have telephone communication between the old and the new stacks, not necessarily to be manned at all times during the moving but readily accessible in the event of a breakdown in the program.

With the question settled of what type of manpower to use, the next consideration is the means to be used for moving. Again this decision will largely be affected by the physical layout of the libraries. Particularly if there is no elevator, it will be necessary to arrange some method of carrying the books from one floor to another. The California Polytechnic Institute Library made an ingenious device from an old fork lift. This lift was refitted with a double platform which reached up to the library windows and let down to just above the level of the bed of a truck(15).

At St. Bonaventure, and at a branch of the Chicago Public Library, the books were carried by students. At St. Bonaventure the books were passed one at a time over a distance of 200 feet, and some volumes were damaged in transit by being dropped(16). This would not necessarily happen at every library which used this "bucket line" method of moving books, especially if the students were not rushed and the need for care was impressed upon them.

Another means of moving books from the old to the new library is by a ramp or chute. At Princeton a wooden ramp 325 feet long, protected by a tarpaper roof, was built from the main-floor level in Pyne Library courtyard to the new Firestone Library(17). Columbia University Library made three chutes out of a supply of several hundred roller shelves(18). Of course, not many libraries would be so fortunate as to own similar shelving in large quantities, and so would not be able to build such a chute. The Toledo Public Library used a 24" steel roller conveyor from the library building to the trucks(19).

Naturally, if ramps or chutes are used, it will be necessary to provide containers for the books. Boxes seem to be the logical choice, and size seems to be the main question about boxes made especially for the moving job. Columbia University used boxes 36" x 12" x 8", with an extension in each corner to permit stacking the boxes without damage to books; each box held from 25 to 30 volumes(20). At Cambridge University 1,000 boxes 28 1/2" x 17" x 13" were used; some boxes held only four or five books and others held as many as 800 very small ones(21). Denison University used boxes 39 1/2" x 11 1/2" x 9 1/2", designed to accommodate one shelf of books in the old library(22). Brown University moved its library in two stages. In the first phase boxes 36" long were used. In the second phase pine boxes one foot square and eight inches deep (inside measure) were used. Each boy carried two of these boxes, one in each hand, thus carrying two feet of books at a time(23). The Toledo Public Library used two sizes of specially made corrugated cardboard containers. For standard books the boxes were 36" x 10 1/2" x 9". For large books the boxes were 36" x 15" x 12". When loaded the first box weighed 75 pounds and the second 150 pounds(24). At the moving of the Enoch Pratt library 1400 boxes 36" x 18" x 12", with handles on each end, were used. Each box held two three-foot shelves of average size books, or one three-foot shelf of oversized books(25). The Social Law Library of Boston found that the most satisfactory boxes used there measured inside 41 1/2" x 11 1/2" x 9", with hand holds cut out at each end(26). The Pennsylvania State College Library used 180 boxes 38" x 14" x 12", with a hand hole cut in each end(27), while the Pennsylvania State Library used boxes 34" x 15" x 12"(28).

Three of the libraries mentioned above found that the boxes of about 36" length were unsatisfactory because they are awkward to handle, and are too long and too heavy for one person to carry(29). The other libraries did not report any difficulty stemming from size of boxes, probably because their moves were handled by movers rather than by students who were not used to the severe work of heavy hauling. The California Polytechnic Institute saved a considerable amount of money by using for book containers the cartons in which asphalt tile flooring for the new library was shipped. There were about 10,000 of these corrugated pasteboard boxes which were used once and then discarded(30). Any library would be well advised to investigate the possibility of using such boxes in moving. The saving in moving cost would probably offset any inconvenience which might be occasioned by the need for handling or storing the boxes temporarily.

One further method of handling the books is by means of book trucks. At Princeton University 15 metal and 11 wooden book trucks were used to wheel the books over the ramp from Pyne Library to Firestone Library(31). Columbia University Library also used book trucks to carry the boxes of books after they came off the conveyor from the old library. Each book truck held three boxes, and the trucks were sent to the stacks in the elevator, five at a time(32). The University of Washington also used book trucks. Each book truck held 14' of books, and six of these trucks were moved at a time in a panel truck. Assistants loaded the trucks and transported them in delivery(33).

In the final analysis each librarian must arrange methods to fit his own situation. But whatever the method used, some means of controlling traffic should be arranged. If the collection is fairly large, and the workers are quick, it will be necessary that there be a flow of books from different parts of the old library to different parts of the new. If this is not done there will be congestion at one location, and consequent breakdown of the whole machinery until the bottleneck is cleared. One method of arranging traffic control is by using a system of differently colored cards, each color representing a different section in the new stacks. As the boxes are prepared, one of these cards is attached to the box in order to show the destination of the box. Another method, used at Toledo, is that of using perforated labels, affixed to the old shelves. When books are placed in containers the bottom section of the label is ripped off and stuck on the end of the box. The color of the label indicates the section to which the box is to go, and a number shows the shelf on which the books are to go(34).

Costs

With the move completely planned, probably the question of major importance is the cost of the operation. Unfortunately, there are no post-war figures in print aside from those for the California Polytechnic Institute. The total cost there was $2100, including rental for lifts and trucks. Expense was cut by using the old cartons and by the unexpected speed of operations(35).

The figures for the other libraries covered in this study are for the years 1938-41, and are hardly representative of current costs. In 1938 Denison University estimated a cost of $1232 for only the student labor for moving 96,400 volumes(36). This works out to a unit cost of a little better than $0.012 a volume. In the same year Brown University spent $560 to move 45,000 volumes, and, later in the year, $172 to move 35,000 volumes. The unit cost for this first move works out to a little more than $0.012, while the unit cost for the later move is $0.0049 a volume. In 1939 Brown University moved 470,000 volumes at a cost of $3000, or $0.0064 a volume(37). Then in the summer of 1940 Brown University moved 30,000 volumes at a cost of $133, or $0.004 a volume. Ten students and a university truck were used for this

move. Later in 1940, 35,000 engineering volumes were moved for $343, or a unit cost of $0.01. The increase was caused by difficulties of book size and transportation(38). The Social Law Library of Boston paid $1350 in 1940 to move a total of 95,000 volumes in two stages; the unit cost was $0.014(39). Again in 1941, the Pennsylvania State College Library paid a total of $2446 for moving 219,260 volumes; this makes a unit cost of $0.01(40).

It seems reasonable to say that the unit cost to move books in the period from 1938 to 1941 averages one cent. On the basis of the figures cited, we may assume that this was a stable figure. It is dangerous to apply similar reasoning to current days, especially because there is only the report of the costs of the California Polytechnic Institute Library's move and because costs are increasing rapidly. The California Polytechnic Institute's cost was $0.12, based on 17,000 volumes. If the additional "thousands of bulletins, circulars, and the like," are estimated at a another 17,000, the unit cost was approximately $0.06, and this is possibly what a librarian today can expect to spend per volume to move his library. Librarians who complete such a move have a responsibility to the profession to publish the details of the operation so that other librarians may profit from good ideas, and errors as well.

FOOTNOTES

(1) William E. Jorgensen, "Rearranging Book Collection," Library Journal 66 (1941) 571.

(2) Lloyd W. Josselyn, "Moving the Enoch Pratt Library," Library Journal 58 (1933) 481.

(3) Katharine M. Stokes and Margaret F. Knoll, "Moving the Pennsylvania State College Library," Wilson Library Bulletin 16 (1941) 231.

(4) Roman W. Mostar, "Moving Day Didn't Interrupt This University Library's Service," Library Journal 75 (1950) 1226.

(5) Francis S. Allen, "This California Library Found Easy Moving Ways," Library Journal 75 (1950) 724, 726.

(6) Mostar, op. cit., p. 1230.

(7) Lionel J. Lee, "Always So Much To Move!," Library Journal 75 (1950) 536.

(8) Helen H. Yerkes, "Moving the Columbia University Library," in Columbia University, South Hall (NY: 1935) p. 54.

(9) Josselyn, op. cit., p. 481-2.

(10) Howard L. Stebbins, "Moving Day," Wilson Library Bulletin 15 (1941) 425;

(11) Stokes, op. cit., p. 236, 238.

(12) Ibid., p. 234.

(13) Russell J. Schunk, "Librarian's Nightmare," Library Journal 66 (1941) 820.

(14) E. Ansell, "Move of the Cambridge University Library," Library Association Record, 4th series, 2 (1935) 95.

(15) Allen, op. cit., p. 725.

(16) I. J. Herscher, "The New Firedsam Library of St. Bonaventure College," Library Journal 63 (1938) 347-349.

(17) Lee, op. cit., p. 535.

(18) Yerkes, op. cit., p. 48.

(19) Schunk, op. cit., p. 820.

(20) Yerkes, op. cit., p. 49

(21) Ansell, op. cit., p. 94-95.

(22) Annie L. Craigie, "Moving Day," Library Journal 63 (1938) 388.

(23) William H. Jesse, "Moving Books," Library Quarterly 11 (1941) 331-32.

(24) Schunk, op. cit., p. 818.

(25) Josselyn, op. cit., p. 481.

(26) Stebbins, op. cit., p. 425.

(27) Stokes, op. cit., p. 233.

(28) A. Coleman Sheetz, "The Journey of the 360,000," Pennsylvania Library Notes 13 (1932) 133.

(29) Ansell, op. cit., p. 94-95; Craigie, op. cit., p. 388; Jesse, op. cit., p. 331.

(30) Allen, op. cit., p. 725.

(31) Lee, op. cit., p. 535.

(32) Yerkes, op. cit., p. 49.

(33) Mostar, op. cit., p. 1227.

(34) Schunk, op. cit., p. 818.

(35) Allen, op. cit., p. 726.

(36) Craigie, op. cit., p. 389.

(37) Jesse, op. cit., p. 328-30.

(38) Ibid., p. 333.

(39) Stebbins, op. cit., p. 425.

(40) An estimate based on published figures for 1939/40 and 1941/42 for the book collection.

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